

Claims

1. Method of making an outer lever (1) of a finger lever (2) that can be switched to different lifts for at least one gas exchange valve, said outer lever (1) comprising two substantially parallel arms (4, 5) whose ends (6, 7) are connected by crossbars (8, 9) so that a rectangular or O-like aperture (10) for an inner lever (11) that is capable of pivoting relative to the outer lever (1) is formed, a running contact surface (14, 15) for a high-lift cam being arranged on an upper side (12, 13) of each arm (4, 5), **characterized by** following work steps that may also contain further intermediate steps:
 - a) deep drawing a cup-shaped base body (16) out of Metal sheet or a sheet metal strip such that at least one drawing die is applied to the metal sheet or the sheet metal strip from an underside (17, 18) of the arms (4, 5) to be formed and a substantial height of the arms (4, 5) and the crossbars (8, 9) in the cup-shaped base body (16) is produced, so that, as viewed in cross-section, an inverse U-shaped profile is formed,
 - b) reducing a radius ($R_{1,2}$) in the edge region between a bottom (19) of the cup-shaped base body (16) and outer sides (20, 21) of the arms (4, 5) by shaping, typically stamping or extrusion at least in the region of the running contact surfaces (14, 15) to be subsequently formed, and
 - c) punching out the bottom (19) of the cup-shaped base body (16) except for at least the two opposing running contact surfaces (14, 15).
2. Method of claim 1, **characterized in that**, simultaneously with, or directly or indirectly after step a), a further step is carried out in which the drawing die or at least one further drawing die or a stamping die is applied to the bottom (19) in deep drawing direction in a vicinity of the end (7), so that a laterally

open or closed lug-like cavity (22, 23) is formed, and the material of the cavity (22) is also punched out in step c) except for an extension (23b, 23a) starting from the crossbar (9) on the end (7).

3. Method of claim 1, **characterized in that** a finger (24) pointing in a longitudinal direction of the lever is punched out of the bottom (19) in step c) simultaneously with the running contact surfaces (14, 15), which finger (24) is bent away from the aperture (10) in a subsequent step so as to project upwards from the crossbar (9).
4. Method of claim 2 or 3, **characterized in that**, when referring back to claim 2, the cavity (22, 23), or when referring back to claim 3, the finger (24) extends centrally away from the crossbar (9).
5. Method of claim 1, **characterized in that** the bottom (19) is cut off in step c) such that inner surfaces (25, 26, 27, 28) of the arms (4, 5) and the crossbars (8, 9), except for the running contact surfaces (14, 15), merge directly or at least approximately directly into the upper sides (12, 13; 29, 30).
6. Method of claim 1, **characterized in that** the running contact surfaces (14, 15) made in step c) have a beam-like geometry and possess, as viewed in longitudinal direction, a slightly cylindrical shape.
7. Method of claim 1 or 6, **characterized in that** the running contact surfaces (14, 15) made in step c) extend approximately at a center of the arms (4, 5).
8. Method of claim 2 or 3, characterized in that step c) is followed by a further step d) in which two aligned receptions (31, 32) are punched or bored into the arms (4, 5) in the vicinity of the crossbar (8) that is opposed to the crossbar (9) comprising the cavity (22, 23) or the finger (24), and said receptions (31, 32) serve to receive an axle for the pivoted mounting of the inner lever (11) relative to the outer lever (1).

9. Method of claim 1, **characterized in that** the running contact surfaces (14, 15) on the arms (4, 5) of the outer lever (1) are intended for a contact with a high-lift cam.